UNITED STATES PATENT AND TRADEMARK OFFICE

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FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER
LLP
901 NEW YORK AVENUE, NW
WASHINGTON, DC 20001-4413

EXAMINER
EDWARDS, LINCLAN E

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/594,310	ALESSI ET AL.
	Examiner	Art Unit	
	Linglan Edwards	2491	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>15 July 2010</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>18-22 and 24-34</u> is/are pending in the application.

    4a) Of the above claim(s) <u>29-33</u> is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>18-22,24-28 and 34</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   This communication is in respond to applicant's submission filed on July 15, 2010. Claims 18-34 are pending, of which claims 29-33 have been withdrawn from consideration.

Continued Examination Under 37 CFR 1.114

2.   A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 8, 2010 has been entered.

Examiner's Note

3.   Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully suggested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

Response to Arguments

4.   Applicant's arguments with respect to amended claims have been considered but

are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 18, 24-28 and 34 rejected under 35 U.S.C. 103(a) as being unpatentable

over **US PG-PUB No. 2003/0115421 A1** to **McHenry et al.** (hereinafter **McHenry**) in

view of **US PG-PUB No. 2002/0010798 A1** to **Ben-Shaul et al.** (Cited in previous office

action, hereinafter **Ben-Shaul**) and **US PG-PUB No. 2003/0028564 A1** to **Sanfilippo**

(Cited in previous office action, hereinafter **Sanfilippo**).

As per **claim 18**, **McHenry** disclosed a method for controlling distribution of

media contents over a network (**McHenry**: Abstract, network edge cache

management system), wherein said contents comprise distributed contents

available at surrogate servers (**McHenry**: Fig. 1, ref 22, 24, "EDGE SERVER")

and remaining contents that are not available at the surrogate servers (**McHenry**:

Fig. 1, content at the "ORIGIN SERVER"), comprising the steps of:

identifying contents eligible for distribution from the remaining contents
(**McHenry**: paragraph [0013], "content selection server" identifies content in the
bounded content domain);

defining a set of categories (**McHenry**: paragraph [0013], "predefined set
of domain content identifiers" each corresponds to a category; also on page 6,
claim 1, "selecting" and "grouping");

identifying for each category at least a reference content (**McHenry**:
paragraph [0013], also claim 1 text, the meta-content description for each content
group is the equivalent of a reference content);

associating said surrogate servers and said identified contents with said
predefined categories (**McHenry**: paragraph [0013], "associate respective sets of
predetermined cache management attributes with the plurality of content groups",
and further on page 6, claim 15, the ache management attributes "designate
corresponding content of said bounded domain for forward or reverse proxy
caching by said plurality of network edge cache servers");

selecting at least one of said predefined categories, wherein the
distributed contents associated with the selected predefined category have an
interest value that exceeds a predetermined interest threshold, wherein the
interest value is indicative of user interest in the distributed contents (**McHenry**:
paragraph [0031], "user access frequencies" corresponds to user interest, as one
ordinary skill in the art would recognize, some type of threshold has to be

predetermined and used for taking into account of the user access frequencies/ interest); and

making at least one of the identified contents associated with said selected predefined category available for distribution at said surrogate servers (**McHenry**: paragraph [0013], cache control rule bases are distributed to the edge servers);

McHenry does not explicitly disclose associating distributed contents and said identified contents based on semantics affinity with said reference content, in an analogous art in network content distribution, **Ben-Shaul** disclosed a method and system that associates distributed contents and identified contents based on semantics affinity (**Ben-Shaul**: paragraph [0063], the example of when user request for a cook book, the server return a list of cook books, and information regarding local food and cookware stores, indicates that contents are associated with predefined categories based on semantics affinity; and paragraph [0072], second version of the content derived from the origin web server); one ordinary skill in the art would recognize that such association method can be equally used for categorizing content at the original server; it would have been obvious to one of ordinary skill in the art at the time of the convention, to modify the system of **McHenry** to incorporate the association contents based on semantics affinity from **Ben-Shaul**, the motivation being for increased system efficiency and ease of use, because using semantics affinity is just one way of categorization;

Although **McHenry-Ben-Shaul** does not explicitly disclose using a reference content to categorize addition content based on semantics distance, in an analogous art in network communications, **Sanfilippo** disclosed a method and system where additional content are categorized based on semantics affinity with reference content, where the semantics affinity is calculated as the distance between the additional content and the reference content (**Sanfilippo**: page 10, claim 27 text); it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the system of **McHenry-Ben-Shaul** to further incorporate the categorizing additional content based on calculation of semantic distance from **Sanfilippo**, the motivation being for increased system efficiency and ease of use, because how to categorize content is just a matter of implementation choice.

As per **claim 24**, **McHenry-Ben-Shaul-Sanfilippo** disclosed the method according to claim 23; although **McHenry-Ben-Shaul-Sanfilippo** does not explicitly disclose using two separate databases for storing classification information, **Ben-Shaul** disclosed using two separate databases for storing content provided (**Ben-Shaul**: paragraph [0072], origin web server storage and edge server storage); it would have been obvious to one of ordinary skill in the art, to also apply the separated databases concept for storing classification information, the motivation being for increased data access efficiency.

As per **claim 25**, **McHenry-Ben-Shaul-Sanfilippo** disclosed the method according to claim 24, wherein said step of selecting at least one of said predefined categories comprises the steps of:

defining the interest threshold to be representative at least of a frequency of user requests for a given distributed content (**McHenry**: paragraph [0031], "user access frequencies"); and

extracting from said first database category information comprising at least one predefined category associated with said given distributed content when said interest threshold is exceeded (**McHenry**: paragraph [0031], "user access frequencies" corresponds to user interest, as one ordinary skill in the art would recognize, some type of threshold has to be used for taking into account of the user access frequencies/ interest).

As per **claim 26**, **McHenry-Ben-Shaul-Sanfilippo** disclosed the method according to claim 24, wherein said step of making at least one of the identified contents associated with said selected predefined category available for distribution at said surrogate servers comprises the step of:

extracting from said second database contents information related to said at least one identified content (**Ben-Shaul**: paragraph [0063], extract information regarding local food and cookware stores when a cook book is requested).

As per **claim 27**, **McHenry-Ben-Shaul-Sanfilippo** disclosed the method according to claim 24 comprising the steps of:

identifying identified information comprising at least usage information provided by said surrogate servers ((**McHenry**: paragraph [0031], "user access frequencies"; and **Ben-Shaul**: paragraph [0054], statistics collection and reporting);

matching said additional information with said category information provided by said first database (**Ben-Shaul**: paragraph [0063], finding related information, i.e., matching content requested with category information; same matching method can be used for content frequently requested as well);

generating at least one class template comprising said matched information (**Ben-Shaul**: paragraph [0070], distribution policies change dynamically based on characteristic of differentiated content; the discloses identifies "class template" as "content distribution events/actions based on triggered policies for distributing the contents or for modifying the distribution policies);

adding to said class template said contents information provided by said second database (**Ben-Shaul**: paragraph [0069] [0070], policies (and new policies) are stored on origin site, a database has to be inherently included for the storage); and

forwarding said at least one modified class template to a distribution system (**Ben-Shaul**: paragraph [0069], the edge servers get updates on their

policies from the origin site, i.e., the new policies are forwarded to the edge

servers from the origin site).

As per **claim 28**, **McHenry-Ben-Shaul-Sanfilippo** disclosed the method

according to claim 27 wherein said step of adding to said class template said

contents information provided by said second database comprises the steps of:

accessing a class template repository (**Ben-Shaul**: paragraph [0069]

[0070], policies (i.e. classes) (and new policies) are stored on origin site, a

database has to be inherently included for the storage, the policy repository has

to be accessed for the change to be recorded); and

modifying said class template according to said content information (**Ben-**

Shaul: paragraph [0069] [0070], policies (and new policies) are stored on origin

site, a database has to be inherently included for the storage).

As per **claim 34**, **McHenry-Ben-Shaul-Sanfilippo** disclosed a computer

readable medium encoded with a computer program product loadable into a

memory of at least one computer, the computer program product comprising

software code portions for performing the method of claim 18 (the rationale of

rejection and reasons of obviousness have been noted in the rejection of claim 1

above and applicable herein).

7.   Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable

over **McHenry** in view of **Ben-Shaul** and **Sanfilippo** as applied to claim 18 above, and

further in view of **US Pat. No. 6,829,613 B1** to **Liddy** (Cited in previous office action,

hereinafter **Liddy)**.

>   As per **claim 19**, **McHenry-Ben-Shaul-Sanfilippo** disclosed the method
>
>   according to claim 18; although **McHenry-Ben-Shaul-Sanfilippo** does not
>
>   explicitly disclose the step of calculating semantics affinity comprising step of
>
>   involving the use of data mining or artificial intelligence mechanisms, in an
>
>   analogous art in electronic content providing, **Liddy** disclosed a method and
>
>   system that calculating semantics affinity involves the use of artificial intelligence
>
>   mechanisms (**Liddy**: col. 13, line 61 - col. 14, line 7, "decision tree" is an artificial
>
>   intelligence mechanism), it would have been obvious to one of ordinary skill in
>
>   the art at the time of the invention, to modify the system of **McHenry-Ben-Shaul-**
>
>   **Sanfilippo** to further incorporate the using of artificial intelligence mechanisms
>
>   for calculating semantics affinity from **Liddy**, the motivation being for increase
>
>   ease of use, because what method to use for calculating semantics affinity is just
>
>   a matter of implementation choice.

>   As per **claim 20**, **McHenry-Ben-Shaul-Sanfilippo-Liddy** disclosed the method
>
>   according to claim 19, wherein said mechanisms comprise at least a mechanism
>
>   selected from neural networks, fuzzy logic and decision trees (**Liddy**: col. 13, line
>
>   61 - col. 14, line 7, decision tree).

8.   Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over
McHenry in view of **Ben-Shaul** and **Sanfilippo** as applied to claim 18 above, and
further in view of **US PG-PUB No. 2002/0062300 A1** to **Asadov et al.** (Cited in previous
office action, hereinafter **Asadov**).

> As per **claim 21**, **McHenry-Ben-Shaul-Sanfilippo** disclosed the method
> according to claim 18; although **McHenry-Ben-Shaul-Sanfilippo** does not
> explicitly disclose using of searching engines in the step of identifying a reference
> content, in an analogous art in electronic content providing, **Asadov** disclosed a
> method and system where search engines are used for identifying document by
> content (**Asadov**: paragraph [0020], [0050], search agents are used for
> identifying document by semantics); it would have been obvious to one of
> ordinary skill in the art at the time of the invention, to modify the system of
> **McHenry-Ben-Shaul-Sanfilippo** to further incorporate the search agents
> (search engines) from **Asadov**, the motivation being for improved system
> efficiency.

9.   Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over
McHenry in view of **Ben-Shaul**, **Sanfilippo** and **Asadov** as applied to claims 18 and 21
above, and further in view of **US PG-PUB No. 2002/0188681 A1** to **Gruen et al.** (Cited
in previous office action, hereinafter **Gruen**).

As per **claim 22**, **McHenry-Ben-Shaul-Sanfilippo-Asadov** disclosed the method according to claim 18, wherein said step of identifying for each category at least a reference content comprises the steps of:

identifying a set of reference contents by using search engines (**Asadov**: paragraph [0020], [0050], search agents are used for identifying document by semantics; see motivation in the rejection of claim 21 above);

Although **McHenry-Ben-Shaul-Sanfilippo-Asadov** does not explicitly disclose calculating a central reference content, in a analogous art in providing electronic content, **Gruen** disclosed a method and system where a centroid document (i.e. central reference content) is calculated for a set of documents (**Gruen**: paragraph [0039], computing a centroid document for a cluster of documents); it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the system of **McHenry-Ben-Shaul-Sanfilippo-Asadov** to further incorporate the calculating central reference content from **Gruen**, the motivation being for increased system efficiency and accuracy for categorizing documents.

Conclusion

10.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linglan Edwards whose telephone number is (571) 270-5440. The examiner can normally be reached on 6:00AM-3:30PM EST Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ashokkumar B. Patel can be reached on (571) 272-3972. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/L.E./   Linglan Edwards, Ph.D.
                                                               Examiner
                                                               Art Unit 2491

        /Ashok B. Patel/
        Supervisory Patent Examiner, Art Unit 2491